

REMARKS

Reconsideration and allowance in view of the foregoing amendments and the following remarks is respectfully requested.

Claim amendments/Status

Claims 1-14 remain pending in the application.

Rejections under 35 USC § 101

The rejection of claims 1-2, 6-7, 9-14 under 35 USC § 101 because the claimed invention is directed to non-statutory subject matter, is to the degree it is still pertinent to the claims as amended, respectfully traversed.

The preamble of claim 1 has been amended in order to make the definition of the invention more concrete. However, it is pointed out that this objection seems unjustified in light of the claims allowed in US 7,113,617 issued to Hewlett-Packard.

Rejections under 35 USC § 112

- 1) The rejection of claims 1-2, 6-7 and 9-14 under 35 USC § 112, first paragraph, as failing to comply with the enablement requirement, is traversed.

In this rejection it is advanced that claim 1 is a single step claim. Not so. Before the amendments noted above, there were two steps, note the language “comprising the steps” of completing the potential obstacles and later in the claim “and” interconnecting the first step with “cataloging areas . . .”

- 2) The rejection of claims 1-2, 6-7 and 9-14 under 35 USC § 112, second paragraph as being indefinite is traversed.

Claims 2 and 13 have been revised to obviate the shortcomings perceived in this rejection.

Rejection under 35 USC § 102

The rejection of claim 1 is 35 U.S.C. 102(b) as being anticipated by Michaelson et al. (IDS references – US 6,469,664), is respectfully traversed.

Claim 1, as amended, is directed to a method for obtaining, by means of a distance transform by propagation, more realistic estimations of curvilinear distances to be traversed by a vehicle. This is achieved by taking in account in the distance transform by propagation, besides the potential obstacles to be circumvented, an additional obstacle to be circumvented placed in the neighborhood of the vehicle, linked to the vehicle and located in a region in the near vicinity of the craft considered to be inaccessible to the craft owing to its limited maneuverability.

The new limitation "obtained by means of a distance transform by propagation" is supported by the description page 7 lines 28-34.

Michaelson et al. (hereinafter Michaelson) disclose a navigational system for surface vessels providing warning of impending grounding occurrences. This navigational system comprises a display generator to indicate whether the distance between the marine vessel and the terrain is less than the boundaries defined by caution and warning envelopes. It predicts an anticipate track or path for the vessel based on mathematical models of the vessel's behavior (col. 8, line 33 to col. 14, line 17) or on international standards for turning and stopping based on ship length (col. 14, lines 18 to 24), uses the vessel position and dynamics (anticipated track) to size the caution and warning envelopes linked to the vessel and outputs alert signal when caution or warning envelop intersects a terrain feature or an obstacle memorised in a terrain database.

Michaelson's navigational system uses a terrain database to build a classical coast map that is the same for all kinds of vessel. As it anticipates the track of the vessel with mathematical models of the vessel behaviour, it needs not build a distance map fitted to the mobility of a particular vessel, that is to say giving for each point of a travel region, the curvilinear distance to go through for the particular vessel having to circumvent potential obstacles. Therefore, Michaelson neither describes nor suggests the use of a distance map and of a distance transform by propagation to estimate curvilinear distance needed to built a distance map. In his navigational system Michaelson has no reason to consider any additional obstacle linked to the vessel.

The rejection is traversed for at least the above noted reason.

Rejection under 35 USC § 103

The rejections of:

- 1) claims 2 and 10 under 35 USC §103(a) as being unpatentable over Michaelson.; and
 - 2) claims 6-7 and 11-14 under 35 USC § 103(a) as being unpatentable over Michaelson and further in view of Meng et al. (US patent 4,862,373);
- are respectfully traversed.

As mentioned above, Michaelson does not describe, suggest nor consider an additional obstacle linked to the vessel. Accordingly, the teachings of this reference fail to make obvious, to one ordinary skill in the art at the time the invention, providing a concave shape such as claimed in claim 2 to the additional obstacle or to applying mathematical formula of claim 10 for

deriving the contour of the additional obstacle.

Meng et al. do not teach or suggest a contour for an additional obstacle linked to an aircraft comprising two circles passing through the position of the aircraft as mentioned in amended claim 6 or comprising two cycloid lobes as called for in amended claim 7. The Meng et al. reference describes relative to the figure 12, a method to determine a path at equal distance from two obstacles having, for the demonstration, the shape of circles. In this method the boundaries of the two obstacles (circles) are incremented outward until they meet each other.

As Meng et al. do not describe or suggest any additional obstacle taking into account the maneuverability limits of an aircraft, their teaching could not render obvious, to one ordinary skill in the art at the time the invention, to withdraw a free angular sector from the additional obstacle as called for in amended claims 11, 12 13 and 14.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and a Notice to that effect is earnestly solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,
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